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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/811,724 | 03/29/2004 | Nebojsa Milanovich | 7095-00 | 1411 |

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| EXAMINER | |
|---|---|
| MACPHERSON, MEOGHAN E | |
| **ART UNIT** | **PAPER NUMBER** |
| 3732 | |

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/811,724 | MILANOVICH ET AL. | |
| | Examiner | Art Unit | |
| | Meoghan E. MacPherson | 3732 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *amendment received on June 1, 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. This action is in response to the amendment received on June 1, 2006.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7, 9, 10, 12-14, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomery'144 (US Patent No. 6,958,144) in view of Summers et al (US Patent No. 5,611).

Montgomery'144 discloses a method for whitening a dental surface comprising non-simultaneously applying a whitening composition to the surface, the whitening composition comprising an orally acceptable peroxy compound, and directing a volume of an activating composition on to the surface, wherein the activating composition comprises a peroxy compound activating effective amount of an orally acceptable basifying agent, and wherein applying the whitening composition and directing the activating composition are separated by an interval not greater than a peroxy compound activating effective interval (col. 3, lines 22-31, 46-48, 52-67; col. 4, lines 16-20; col. 4, line 64-col. 5, line 8; col. 10, line 61-col. 11, line 15). Montgomery'144 discloses that the activating composition raises the pH in the immediate environment of the dental surface to a value of at least about 7 (col. 3, lines 22-31, 52-67; col. 4, line 64-col. 5, line 8). Montgomery'144 discloses that application of the whitening composition

and directing of the activating composition are separated by an interval of not greater than one hour. Montgomery'144 also discloses that directing of the activating composition on to the dental surface precedes application of the whitening composition, and that directing of the activating composition on to the dental surface substantially immediately precedes application of the whitening composition (col. 4, line 64-col. 5, line 8). Montgomery'144 discloses that the peroxy compound is hydrogen peroxide (col. 2, lines 2-6; col. 3, lines 46-48, 52-55). Montgomery'144 discloses that the activating composition is a liquid comprising the basifying agent in aqueous solution and that the basifying agent is an alkali metal carbonate salt (col. 4, line 64-col. 5, line 8; col. 11, lines 9-10). Montgomery'144 further discloses that the activating composition has a pH of about 8 to 12 (col. 10, line 61-col. 11, line 2). Montgomery'144 however, does not disclose that the activating composition is atomized.

Summers et al teach the application of an atomized composition to a dental surface for the purposes of tooth bleaching (col. 1, lines 51-67; col. 2, lines 51-64). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the whitening method of Montgomery'144 to create a dental whitening method that delivered an atomized activating composition to the dental surface for a more uniform and accurately applied activation composition.

Regarding claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a delivery device with a maximum volume of 2.5 mL as the volume of activating composition available for application to the dental surface is an obvious matter of choice as this volume is limited by the volume of the delivering device chosen for the activating composition.

Regarding claims 6 and 7, it would have been an obvious to one having ordinary skill in the art at the time the invention was made to apply the activating composition after application of the whitening composition as this is merely a reversal of the order of known steps used.

Regarding claim 12, it would have been an obvious to one having ordinary skill in the art at the time the invention was made to direct a volume of about 25 μL to 1 mL as the amount applied to the dental surface is a function of the amount needed to properly activate the whitening composition.

Regarding claim 19, it would have been an obvious to one having ordinary skill in the art at the time the invention was made to create a whitening kit containing the whitening composition and the atomizing dispensing container having the atomizable activating composition held within as it is well known in the art to combine the elements of a whitening process into a single kit for easy delivery to dental professionals.

4. Claims 8, 11, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomery'144 in view of Summers et al as applied to claims 1 and 13 above, and further in view of Gaffar et al (US Patent No. 5,648,064). Montgomery'144 in view of Summers et al disclose a whitening method that shows the limitations as described above; however, Montgomery'144 in view of Summers et al does not disclose the whitening composition as a mouthwash, dentifrice, oral strip, liquid whitener, or chewing gum, that the whitening composition comprises a peroxy compound in a total hydrogen peroxide amount of 0.1% to 10%, or that the activating composition comprises a cosolvent, mouth feel modifying agent, surfactant, preservative, sweetener, flavorant, or colorant.

Gaffar et al teach the whitening composition as a dentifrice and as a mouthwash (col. 4, lines 24-49; col. 6, lines 35-37). Gaffar et al also teach that the whitening composition comprises the peroxy compound in a total hydrogen peroxide equivalent amount of 0.1% to 10% by weight (col. 3, lines 30-53). Gaffar et al further teach the use of colorants, flavorants, and sweeteners (col. 5, lines 13-20, 61-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the whitening composition and activating composition of Montgomery'144 as modified by Summers et al to create a whitening composition of an appropriate chemical composition as well as in an easily applied medium, and to create an activating agent which yielded a more pleasant experience for the patient during use.

5. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montgomery'144 in view of Summers et al as applied to claim 13 above, and further in view of Banerjee et al (US Patent No. 6,485,709). Montgomery'144 in view of Summers et al disclose a whitening method that shows the limitations as described above; however, Montgomery'144 in view of Summers et al does not disclose the basifying agent as sodium bicarbonate.

Banerjee et al teach the use of sodium bicarbonate as a basifying agent, present in the range of 0.5% to 20% by weight sodium bicarbonate in a dental surface whitening method (col. 2, lines 51-63; col. 3, lines 4-23; col. 6, line 19-col.7, line 10; col. 7, lines 54-58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the whitening composition and activating composition of Montgomery'144 as modified by Summers et al to create a suitable activating agent for speeding up the bleaching process.

### *Response to Arguments*

6. Applicant's arguments filed June 1, 2006 have been fully considered but they are not persuasive.

In response to applicant's argument that Summers et al does not disclose or suggest using the spray bottle to spray materials other than a tooth whitening bleach, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In the instant case, the spray apparatus of Summers et al teaches the atomization of the contained liquid during the application of the liquid to the teeth. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the spray apparatus for delivery of an atomized activating compound or any other liquid that was to be applied to the teeth.

### *Conclusion*

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meoghan E. MacPherson whose telephone number is (571)-272-5565. The examiner can normally be reached on Mon-Fri 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571)-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Todd E. Manahan
Primary Examiner

Meoghan E. MacPherson
Meoghan E. MacPherson